Eating Soup With A Spoon: The Employment of Fires Brigades in the GWOT

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The purpose of this monograph is to analyze the employment of fires brigades (FiB) in the global war on terror and determine if FiBs are being utilized fully and in their doctrinal role. Army and joint doctrine are in agreement over the importance of synchronizing lethal and nonlethal fires. This importance is not present when evaluating army and joint COIN and stability doctrine. The FiB has the capability to conduct full spectrum operations including maneuver tasks previously assigned to only brigade combat teams. Operation Iraqi Freedom (OIF) and Operations Enduring Freedom (OEF) illustrate the varied employment of fire brigades. Recommendations for the employment of FiBs include: 1) reassessing the importance of fires (lethal / nonlethal) synchronization in army and joint doctrine, 2) the publication of artillery specific doctrinal publications, 3) force structure of FiBs should be modified to allow full spectrum operations without augmentation, 4) business rules for the employment of FiBs within the army force generation process should be established, and lastly International Security Assistance Force should include FiBs in its force structure.

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Abstract

Eating Soup With A Spoon: The Employment of Fires Brigades in the GWOT by LTC John C. Hale, USA, 44 pages.

The purpose of this monograph is to analyze the employment of fires brigades (FiB) in the global war on terror and determine if fires brigades are being utilized fully and in their doctrinal role. The US Army developed FiBs to replace the previous corps artillery and divisional artillery headquarters, and to be capable of operating as a modular organization with full spectrum capabilities. Army and joint doctrine are in agreement over the importance of synchronizing lethal and nonlethal fires. This importance is not present when evaluating army and joint COIN and stability doctrine. The organization of the FiB is significantly different from artillery brigades. The FiB has the capability to receive and support attached forces and conduct full spectrum operations including maneuver tasks previously assigned to only brigade combat teams.

This monograph analyzes FiB organization and capability contained in doctrine and the employment of FiBs in current conflicts to recommend solutions for improving both lethal and nonlethal fires and the employment of FiBs. Army and joint doctrine form the foundation of operations and therefore must be examined with regard to fires employment. Fires brigade doctrine should be examined to determine if FiBs are being employed in accordance with doctrine and where their capabilities are maximized. Historical case studies of operations in both Iraq and Afghanistan provide insights into the positive and negative employment of FiBs and identify areas for improvement in their employment. Operation Iraqi Freedom (OIF) and Operations Enduring Freedom (OEF) illustrate the varied employment of fire brigades. These examples identify FiBs operating in a full spectrum role conducting both traditional maneuver and fires functions. The employment of FiBs in OIF and OEF identify both positive and negative examples of maximizing the FiB case studies reviewing the corps and division headquarters structure identify weaknesses in their fire support capability, that the FiB was created to mitigate. The current use of some FiBs as force providers does not account for their full spectrum nature or the full fire support capability a FiB brings to a supported unit.

Recommendations for the employment of FiBs include: 1) reassessing the importance of fires (lethal / nonlethal) synchronization in army and joint doctrine, 2) the publication of artillery specific doctrinal publications regarding the role of FiBs and corps / division fire support employment, 3) force structure of FiBs should be modified to allow full spectrum operations without augmentation, 4) business rules for the employment of FiBs within the army force generation process should be established, and lastly International Security Assistance Force should include FiBs in its force structure. These recommendations maximize the capabilities of the FiB, support army and joint force commanders with the right tool for the right job, and support FiBs in maintaining full spectrum capability.

TABLE OF CONTENTS

Eating Soup With a Spoon: The Employment of Fires Brigades in the GWOT

Fires Brigades have become the Army's "utility in –fielders" and force providers of choice for those missions because of their functional adaptability and multi-functional capability.

Samuel R. White, "The Fires Brigade –A Critical Capability in an Era of Persistent Conflict"

Introduction

Lieutenant Colonel (Retired) John A. Nagl in his book *Learning to Eat Soup with a Knife* describes the complexity and difficulty in adapting a conventional army to combat an insurgency.[1] A military must also not forget its fundamental capabilities and doctrine. A historical assessment of how the US Army is employing field artillery / fires brigades (FiBs) in Iraq and Afghanistan is a study in how the army has forgotten its fundamental doctrinal principles. It is fighting the current wars based on limited counterinsurgency and stability doctrine, while ignoring army and joint operations doctrine. It also highlights the army is not applying a holistic approach to combat operations and bridging the gap between counterinsurgency operations (COIN) and high intensity conflict (HIC). An evaluation of the employment of FiBs shows the potential for increases in field artillery competencies in both COIN and HIC, and increasing the lethal and nonlethal effects in the current conflicts of Iraq and Afghanistan. The Army may solve the conundrum of *How to Eat Soup with a Knife* by simply using the right tool for the right job - a spoon. Through looking at army and joint doctrine, the capabilities of units and applying doctrine and capabilities to the conflict, the army could increase its effectiveness throughout the spectrum of conflict.

[1] John A. Nagl, *Learning to Eat Soup with a Knife.; Counterinsurgency lessons from Malaya to Vietnam* (Chicago, IL: University of Chicago Press, 2002), xii.

Envision an army unit capable of operating in a joint and combined environment, capable of synchronizing lethal and nonlethal fires, while conducting full spectrum operations, possessing the organic capability to support attached forces, and with a span of control equivalent to that of XVIII Airborne Corps during Desert Storm.[2] That unit is a fires brigade. The mission of a fires brigade is to plan, synchronize, and employ joint and combined fires in support of a division, corps or combined joint task force. These missions were previously conducted by divisional artillery and corps artillery now fall to the fires brigade.[3] The fires brigade has the capability to conduct full spectrum operations with attached air or ground maneuver forces. A fires brigade is a multifunctional headquarters capable of being a force fires headquarters or combined arms headquarters.[4] This headquarters can operate across the full spectrum of conflict including stability operations, security force operations and foreign internal defense. The fires brigade has several key enablers that allow it the flexibility to receive assigned or attached units. These enablers include an organic Brigade Support Battalion and Signal Company. Transformation of field artillery brigades to fires brigades increased both the size and capability of the headquarters. Fires brigade headquarters are organized with a lethal effects section, fire control section, information operations section, air support section, air defense airspace management section, and topographic section. These sections possess the full suite of Army Battle Command Systems (ABCS) enabling the span of control that is only limited by the density of forces assigned or attached.[5]

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[2] Samuel White, "The Fires Brigade – A Critical Capability in an Era of Persistent Conflict," White Paper, 5.

[3] Department of the Army, *Field Manual* 3-09.23: *Modular Fires Battalions* (Washington, D.C.: Government Printing Office), 1-2.

[4] White, "The Fires Brigade White Paper," 7.

[5] *Field Manual 3-09.23*, 1-3.

Fires brigades have seen their mission and core competencies decay following the transformation of the Army into a brigade centric organization. [6] This is in part due to nature of counter-insurgency warfare and FiBs utilization for a myriad of secondary missions. There is a belief in the military that artillery units are not suited to counter-insurgency warfare.[7] Fires brigades are being deployed piecemeal, without utilizing their true full-spectrum capabilities.[8] This has resulted in the fragmentation of unit command and control and the atrophy of not only core field artillery skills but a degradation of FiB headquarters competency in full spectrum operations. Lieutenant General William Caldwell stated at the 2008 Fires Seminar at Fort Sill Oklahoma "As former Army Chief of Staff GEN Shinseki once said 'Warfighting is about fires and maneuver – fires enable maneuver, maneuver enables fires. You can't have a discussion on just one of those principles. Close supporting indirect fires destroy the enemy, suppress the enemy's capabilities and then protect our forces.'" [9] This statement by LTG Caldwell is not directed at only high intensity conflict, but full spectrum operations to include counter insurgency operations. With an understanding of the capabilities of fires brigades, senior leaders can realize how operations can be enhanced through their deployment.

Army and joint doctrine form the foundation of employment for all military units. The emerging doctrine of fires brigade employment is not well known, nor is their organization and capabilities. A comparison of doctrinal references shows where efficiencies can be gained by

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[6] Sean MacFarland and others. *The King and I: The Impending Crisis in Field Artillery's Ability to Provide Fire Support to Maneuver Commanders* (Washington, D.C.: Government Printing Office, 2008), 1.

[7] Lawerence Yates, Global War on Terrorism Occasional Paper 4. "Field Artillery in Military Operations Other Than War: An Overview of the US Experience." (Fort Leavenworth, KS: Combat Studies Institute Press, 2004), 38.

[8] White, "The Fires Brigade White Paper," 5.

[9] William B. Caldwell, "Remarks at the Fires Seminar Fort Sill, OK, 03 June 2008," US Army Combined Arms Center. http://usacac.army.mil/CAC2/Repository/SelectedSpeeches/C3FiresSeminarSpeechatFTSill.pdf (accessed 1 June 2009).

fully employing fires brigades on the battlefield, as opposed to their current piecemeal employment throughout a theater of operation. The current deployment of only pieces and parts of a FiB results in losing an entire brigade for 18-24 months without maximizing the capabilities of the entire brigade or fully utilizing its true capabilities to integrate and synchronize fires.[10] The employment of forces in accordance with doctrine may assist commanders in mitigating risk while maximizing the FiBs capabilities regarding fires employment.

General Stanley McCrystal, Commanding General of International Security Assistance Force (ISAF), has stated an intention of his command in Afghanistan is to "reduce civilian casualties in Afghanistan."[11] The major cause of civilian casualties in Afghanistan is the delivery of munitions by aircraft.[12] International Security Assistance Force (ISAF) is a Multi-National Force operating at the Combined Joint Task Force level in Afghanistan encompassing both the strategic and operational level of war, yet it has no dedicated fire support echelon supporting operations across the country. ISAF is not a standing corps or theater headquarters, adding to the difficulty of integrating fires into operations and the command and control of various fire support assets in a multinational environment.[13]

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[10] Department of the Army, Field Manual 1-02: *Operational Terms and Graphics* (Washington, D.C.: Government Printing Office), D-2. The current cycle of deployments for many units is one year on and one year off. Deploying only 1/3 of a unit during this cycle means the entire unit is unavailable for deployment over a two year period.

[11] Stanley McCrystal, Advanced Questions for Lieutenant General Stanley McCrystal, USA Nominee for Commander, NATO International Security Assistance Force, and Commander, US Forces Afghanistan (2 June 2009), 18-19.

[12] Frank Jordans, "NATO airstrike in Afghanistan kills up to 90," Associated Press http://www.breitbart.com/article.php?id=D9AGGDK00&show_article=1 (accessed 4 September 2009).

[13] Dewey A. Granger, "Integration of Lethal and Nonlethal Fires: The Future of the Joint Fires Cell," Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2009, 21.

The field artillery as a branch has been described as a “dead branch walking” and has been in search of its role for eight years.[14] A way ahead for FiBs is to educate the army and joint force on its full spectrum nature, and in the capabilities they bring to any battlefield throughout the spectrum of conflict. The solution for both increasing effectiveness of troops in the field, economical use of forces available, and enhancement of effective unit employment is the deployment of fires brigades as complete units. This option brings to bear not only the COIN capabilities of a brigade, but the lethal and nonlethal integration needed during any full spectrum engagement.

Methodology

This monograph analyzes FiB organization and capability contained in doctrine and the employment of FiBs in current conflicts to recommend solutions for improving both lethal and nonlethal fires and the employment of FiBs. Army and joint doctrine form the foundation of operations and therefore must be examined with regard to fires employment. Fires brigade doctrine should be examined to determine if FiBs are being employed in accordance with doctrine and where their capabilities are maximized. Historical case studies of operations in both Iraq and Afghanistan provide insights into the positive and negative employment of FiBs and identify areas for improvement in their employment.

Fires is defined in *JP1-02* as the use of weapon systems to create a specific lethal or nonlethal effect on a target. Also applicable is fire support which *JP1-02* defines as fires that directly support land, maritime, amphibious, and special operations forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. *Field Manual 3-0* combines the joint definitions within the fires warfighting function, as the related

[14]McFarland and others, ‘The King and I,” 1.

tasks and systems that provide collective and coordinated use of Army indirect fires, joint fires, and command and control warfare, including nonlethal fires, through the targeting process. Doctrine does not provide a clear definition of lethal and nonlethal fires; however FM *3-07* provides a framework of lethal and nonlethal actions that will be used to describe the fires in the COIN environment. These definitions are the basis for examining the doctrine and capabilities of the FiB.[15]

Using historical examples of the employment of FiBs forms the basis of developing recommendations on how to employ FiBs to maximum effect.[16] Historical research is described by Clausewitz as the best criteria for critical analysis through viewing practical application as opposed to theory. Theory or doctrine must be reviewed to understand the context of the practical application of forces so both practical application and doctrine are reviewed. The comparison of historical examples in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) show the lack of full application of FiBs on the current battlefield. OIF identifies both a positive example and a negative example for comparison of FiB employment. OEF also highlights a positive and negative example where a need for the capability was identified and an artillery headquarters and certain parts of a FiB were deployed.

The principles of war are used to evaluate the historical employment of FIBs, specifically the principles of maneuver, unity of command and economy of force. Maneuver is defined as the "employment of forces in the operational area through movement in combination with fires to achieve a position of advantage in respect to the enemy in order to accomplish the mission."[17]

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[15] *Joint Publication 1-02*, 202; *Field Manual 3.0*, 4-4; *Field Manual 3.0*, 2-3.

[16] Carl von Clausewitz, *On War* (Princeton, New Jersey: Princeton University Press, 1976), 170-171.

[17] Department of Defense, *Joint Publication 3-0 Joint Operations 27 SEP 2006 incorporating change 1 13 February 2008* (Washington, D.C.: Government Printing Office, 2008), Glossary 19.

Field Manual 3-0 defines unity of command as applying a force's full combat power and that unity of command means that a single commander directs and coordinates the actions of all forces toward a common objective and cooperation may produce coordination, but giving a single commander the required authority is the most effective way to achieve the subordinate goal of unity of effort. *Field Manual 3-0* defines economy of force as allocating "only the minimum combat power necessary to shaping and sustaining operations so they can mass combat power for the decisive operation."[18] These criteria allow the evaluation of fires employment in the current environment and provide guidelines for future employment of FiBs.

Army and Joint Doctrine

Doctrine forms the foundation for the employment of all military forces across the spectrum of conflict. The army and joint community have published some updated doctrinal sources for operations. The army has updated several doctrinal sources for how the transformed army is to fight. Most prominent are *FM 3-0 Operations, FM 3-24 Counterinsurgency,* and *FM 3-07 Stability Operations*. These three documents, together with multiple statements of senior leaders, point toward the vision for future conflicts and how to maximize resources in the current conflict.[19] *Joint Publication 3.0, Joint Operations* and *Joint Publication 3.09, Joint Fires Support* are the capstone references for operations in joint and combined commands. Joint Forces Command followed the army and has removed EBO from the lexicon, training and operations.[20] The removal of effects based operations (EBO) in which fires, lethal effects and nonlethal effects

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[18] Department of the Army, *Field Manual 3.0, Operations* (Washington, D.C.: Government Printing Office, February 2008), A-2.

[19] George Casey, "Speech to Atlantic Council 28 May 2009,"Atlantic Council. http://www.acus.org/event/general-casey-complex-operations-and-counterinsurgency/transcript, (accessed 1 July 2009).

[20] James N. Mattis, "Assessment of Effects Based Operations," Memorandum for Joint Forces Command, 14 August 2008, 6.

were once tied, requires a careful examination of joint doctrine in relation to fires. Despite the removal of EBO from joint doctrine, an emphasis remains on the need for joint force commands to integrate and synchronize both lethal and nonlethal fires across an operational area. The US military leadership has consistently sent a common message in keeping with the concept of full spectrum operations, which is flexibility of formations to accomplish missions across the full spectrum of operations. An understanding of Army and joint doctrine is essential to understanding the role of fires and fire brigades in full spectrum operations.

Army Doctrine

Fires is fundamental to army doctrine and one of the major elements of combat power and critical warfighting functions. This is stated in *FM 3.0 Operations* as, "The fires warfighting function is the related tasks and systems that provide collective and coordinated use of army indirect fires, joint fires, and command and control warfare, including nonlethal fires, through the targeting process." [21] The integration of fires across the spectrum of conflict is therefore a critical component for the success of any operation. The Army's primary mission is land dominance across the spectrum of conflict and the accomplishment of this mission requires the integration of fires.[22] Fires as a component of land combat and close combat includes the integration of lethal, nonlethal and aerial delivered fires.[23] The delivery of lethal fires in complex terrain (Urban / Mountainous) or in a complex environment (multi-national /coalition) requires a higher degree of

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[21] *FM 3.0*, 4-1, 4-4.

[22] United States Army, "Organization," United States Army. *http://www.army.mil/info/organization/* (accessed 4 September 2009); *FM 3-0*, 4-1.

[23] Department of the Army, *Field Manual 6-0, Mission Command: Command and Control of Army Forces* (Washington, D.C.: Government Printing Office, August 2003), 1-12.

coordination than a United States only operation in traditional high intensity conflict.[24] The synchronization of lethal and nonlethal fires is clearly specified for all levels of command and throughout the spectrum of conflict. The tempo of lethal and nonlethal fires will vary throughout the spectrum of conflict but the synchronization and coordination with maneuver effects is critical to achieving military objectives.[25]

Field Manual 3-0 defined the new paradigm for operations with the overarching operational concept of full spectrum operations first articulated in army doctrine in 2001. This concept encompasses the full range of military operations: Offense, Defense, Stability and Civil Support. The concept envisions all four activities being conducted simultaneously. [26] *Field Manual 3-0* provides the Army's guidance and vision for operations as, "The Army established full spectrum operations in the 2001 version of *FM 3-0 Operations*, shifting sharply from an "either-or" view of combat and military operations other than war to an inclusive doctrine that emphasized the essentiality of nonlethal actions with combat actions." [27] The holistic view of full spectrum conflict stated in *FM 3-0* therefore requires linkages between lethal and nonlethal activities. Army doctrine clearly identifies the requirement of fires integration in full spectrum operations; the unit designed within the force structure to accomplish this is the FiB.[28]

Field Manual 3-24, Counterinsurgency, provides a general framework for the conduct of counterinsurgency campaigns, through the conduct of offense, defense and stability

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[24] Department of the Army, *Field Manual 3-24, Counterinsurgency* (Washington, D.C.: Government Printing Office, December 2006), 5-12.

[25] *FM 3-0*, 4-1.

[26] Ibid., 3-1.

[27] Ibid., viii.

[28] *FM 3-0-1*, 1-16.

simultaneously along multiple lines of effort.[29] *FM 3-24* forms the foundation of army counterinsurgency doctrine. It provides a general framework for evaluating an insurgency and combating it. The weakness of *FM 3-24* is that its focus is on the tactical level for the majority of the document. It fails to address the operational level and the employment and synchronization of lethal and nonlethal fires. The term fires is used throughout *FM 3-24* highlighting the negative aspects of employing fires in COIN, without describing fires as both a lethal and nonlethal activity throughout the levels of war. The notable exception is the case study on 3[d] Armored Cavalry's operations in Tal Afar, where it is noted during the regiment's clear phase of operations, that the use of precision fires to defeat resistance in urban areas was a critical enabler.[30] Appendix E of *FM 3-24* focuses on airpower in COIN, emphasizing the precision nature of airpower and its ability to minimize collateral damage while also providing intelligence collection. Absent from *FM 3-24* is any evaluation or description of the use of precision artillery fires in COIN. Precision artillery fires have been successfully used in both Iraq and Afghanistan, and can provide much lower collateral damage than the use of airpower.[31] The nonlethal aspects of COIN are covered in great detail, however again at the tactical level. *Field Manual 3-24* does not provide the linkage of lethal and nonlethal fires and does not support the importance of fires as a warfighting function contained in *FM 3-0*.

Field Manual 3-07, Stability Operations, describes the stability component of full spectrum operations. *FMl 3-07* also describes the army's approach to full spectrum

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[29] *FM 3-24*, Foreward.

[30] Ibid., 5-22 -5-23.

[31] Mark E.Brock, "The FA is Alive and Well - In Fact, Thriving," *Field Artillery* (July-August 2006): 19.

operations throughout the spectrum of conflict.[32] Fires is not specifically addressed, however the linkage between lethal and nonlethal actions are highlighted as a "complimentary relationship" within stability operations. Although not focusing on lethal actions, *FM 3-07* spends considerable effort in describing nonlethal actions and the need to synchronize them across the battlefield. Fires is the collective and coordinated use of Army indirect fires, joint fires, and command and control warfare, including nonlethal fires as defined in *FM 3-0*. The lack of operational descriptions of the employment of fires in stability operations is a critical weakness in the doctrine. While addressing nonlethal actions, the omission of lethal actions and the synchronization of the two in stability operations create a gap in knowledge for those operations.

Field Manual Interim 3-09.24, Fires Brigade, is the most current core doctrinal reference for the employment of fires brigades. Due to the pace of transformation and the changing environment FIBs do not have updated doctrine for their post transformation structure.[33] *Field Manual Interim 3-09.24* is currently in a revised final draft form and not approved for implementation.[34] The first army FiB was established in 2004, however *FM 3-09.24* is still in final draft five years later. [35] *Field Manual Interim 3-09.24* states the role of the FiB as, "The FiB gives the division, corps, JFLCC, JTF or other supported commander a HQ to plan, synchronize, and execute close supporting fires for engaged forces, as well as strike, counterstrike, and fires in

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[32] Department of the Army, *Field Manual 3-07, Stability Operations. (*Washington, D.C.: Government Printing Office, February 2008), 2-1.

[33] US Doctrine and Training Publications, "Doctrine," United States Army. http://www.army.mil/usapa/doctrine/Active_FM.html. Internet (accessed 25 September 2009).

[34] Fires Knowledge Network, "Field Artillery Publications," United States Army. https://www.us.army.mil/ (accessed 4 September 2009).

[35] William H. Ward, "The Army's First Fires Brigade," *Field Artillery* (November-December 2005): 20.

support of shaping operations throughout the command's Area of Operations."[36] Despite the stated role in doctrine for a fires brigade, there are few instances of their full employment in this role beyond OIF and none have been deployed in support of OEF.[37] *Field Manual Interim 3-09.24* provides the linkage to full spectrum operations with the FiB HQ being capable of command and control of both army and joint lethal and nonlethal activities. The FiB is doctrinally anticipated to be assigned at the division, corps or joint force command level to provide those capabilities and synchronize the lethal and nonlethal activities of the supported command. *Field Manual 3-09.23, Modular Fires Battalion,* and *FM 3-09.50, Tactics, Techniques, and Procedures for the Field Artillery Howitzer Battery,* are also in revised final draft form.[38] Fire support doctrine for divisions and corps are in final coordinating draft form.[39] The lack of current doctrine for the employment and coordination of fires is a severe impediment to the force, hindering the proper employment of field artillery units and not providing leaders with a template for their capabilities.

Joint Doctrine

The criticality of fires as a component of joint operations is stated in *Joint Publication 3.0, Joint Operations,* and is described as a function "common to joint operations at all levels."[40] The necessity to synchronize fires with movement and maneuver is fundamental. The command and control function also has a direct relationship to fires. The coordination of lethal and

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[36] Department of the Army, *FMI 3-09.24, "The Fires Brigade,"* (Washington, D.C.: Government Printing Office, 2006), 1-6.

[37] William G. Pitts, "Overview: Field Artillery in Operation Iraqi Freedom," *Field Artillery Journal* (September-October 2003): 2-4.

[38] Ibid.

[39] Ibid.

[40] *JP 3.0,* III-1.

nonlethal actions across the joint force is a command responsibility. The exercise of this responsibility may be conducted by units attached or under the operational control to the joint force.[41] *Joint Publication 3-09, Joint Fire Support,* is the capstone joint doctrine for coalition and joint fire support in all operations. *JP 3-09* reinforces *JP 3-0's* description of fires as an integral component of joint and combined operations. Joint doctrine is lacking on current COIN and stability doctrine and makes no reference to the integration of fires in those operations.[42]

Joint Publication 3-0 describes fires as a function of joint operations encompassing targeting, fire support, interdiction, employment of information operations and assessment. Targeting is the selection and prioritization of targets for engagement and the determination of means to achieve a desired effect. The targeting process should take into account information operations and may include the use of nonlethal assets to engage targets. Fire support is the combination of lethal and nonlethal engagement synchronized with maneuver to achieve desired battlefield effects. The integration and synchronization of fires and maneuver is essential.[43] Interdiction operations are designed to impact enemy forces directly prior to their ability to influence friendly forces through the use of fires or maneuver. Although interdiction is mainly considered an airpower function, both fires and maneuver forces have the capability to interdict. Employment of information operations includes nonlethal means to engage targets predominantly through electronic attack. Assessment within the fires function is the evaluation of the effectiveness of the employment of lethal and nonlethal fires in achieving desired objectives. The

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[41] *JP 3-0,* xviii, III-2.

[42] *JP 3-07 Joint Doctrine Military Operations Other Than War; Joint Publication 3-07.1, Joint Tactics, Techniques and Procedures for Foreign Internal Defense (FID). JP 3-07* is a legacy publication last updated in 1995. *JP 3-07.1* briefly addresses counterinsurgency in the form of Foreign Internal Defense (FID). There is no mention of fires, or the synchronization of lethal and nonlethal fires/actions. The absence of references to fires is a glaring omission in light of the updated *JP 3.0 Operations.* This lack of continuity in joint doctrine perpetuataes the impression that fires has little role in COIN.

[43] *JP 3-0,* III-20.

assessment process includes future targeting recommendations and whether objectives are being accomplished.[44]

The concept of fires stated in *JP 3-0* is echoed in *JP 3-09, Joint Fire Support*.[45] *JP 3-09* expands on the role of fires and the requirement for its synchronization and integration with maneuver. The joint force commander (JFC) is responsible for the integration and synchronization of fires across the joint force as a function of command. *Joint Publication 3-09* states "Maneuver and joint fires support the complementary functions that are essential to achieving JFC objectives. Fires encompass not only lethal means but the coordination of lethal and nonlethal fires to achieve effects and accomplish these objectives. This coordination is more important during the conduct of operations in a multinational environment."[46]

Three conclusions are reached by this review of army and joint doctrine. First is the importance of synchronizing and integrating fires as stated in both *FM 3-0* and *JP 3-0*. Second is that the necessary emphasis on fires is not present when evaluating COIN and stability doctrine. The third conclusion is field artillery doctrinal publications have not been published to the army following transformation impeding the employment of fires. There is a clear disconnect between basic doctrine for the employment of fires in operations and the employment of fires in COIN and stability environments. A key component in achieving the guidance in *FM 3.0*, and achieving the battlefield effects in *FM 3-24* and *FM 3-07*, is the synchronization of operations and the integration of lethal and nonlethal fires.[47] The lack of consistency in doctrine hampers the effective employment of fires in operations at the operational level of war and fails to educate the

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[44] *JP 3-0*, IV-30.

[45] Department of Defense, *Joint Publication 3-09 Joint Fire Support 13 NOV 2006* (Washington D.C.: Government Printing Office, 2006), I-1.

[46] Ibid,, I-4, I-6, III-6.

[47] *FM 3-0*, 3-1, 3-4, 3-5.

force on the role of fires in COIN and stability operations. This also leads to the conclusion that fires, specifically FiBs, do not have a role in the conduct of COIN and stability operations. The capabilities a FiB brings to full spectrum operations include the integration of fires and the ability to command and control ground forces, adding a significant capability to the JFC. An evaluation of the organization and capabilities of the FiB identifies the contribution of FiB's to full spectrum operations.

Fires Brigade Organization and Capabilities

The FiBs are designed as modular organizations capable of integrating forces based on the mission assigned. This flexibility allows FiBs a broad mission profile, while also providing a robust fire control and support structure unique to a FiB.[48] The unique fire control capability is particularly suited to the delivery of precision guided munitions by army units.[49] The fire control capability linked to the post transformation command and control system improvements provides operational and tactical commanders a critical capability in full spectrum operations.[50] The organization of brigades following transformation has standardized the Command and Control (C2) capabilities of the brigade structure across the force. Brigade combat teams and FiBs now have identical command and control systems through the Army Battle Command Systems (ABCS). The capability and span of control of each type of brigade is now similar, with each organization capable of command and control of units over areas that far exceed the capability of pre-transformation brigades and now approach the geographic span of control of a corps.

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[48] White, "The Fires Brigade White Paper," 4.

[49] Vincent R. Bielinski, "Massed Precision Fires: A New Way of Thinking," *Field Artillery* (March-April 2009): 14.

[50] White, "The Fires Brigade White Paper," 6.

The FiB is a modular organization consisting of a brigade headquarters, Multiple Launch Rocket System (MLRS) or High Mobility Artillery Rocket System (HIMARS) battalion, target acquisition battery, signal company, and a brigade support battalion (BSB).[51] It is capable of command and control of up to six additional battalions of artillery or other enabling units. Fires brigade headquarters (FiB HQ) are organized with a lethal effects section, fire control section, information operations section, air support section, air defense airspace management section, and topographic section. The FiB organization allows a significant increase in the situational awareness of a commander. The FiB aids the supported commander in his capability to deliver and synchronize lethal and nonlethal fires, as well as develop host nation security forces.[52]

The FiB is capable of assisting a supported command in oversight of technical artillery skills and assist in training host nation forces in the employment of fires. The lethal effects and information operations sections can assist host nation security forces with the synchronization of their lethal and nonlethal operations. The lethal effects section can additionally train host nation forces in fire support, ranging from forward observer training to rotary and fixed wing fire support integration. The fire control section has the capability to train and develop host nation artillery units and assist in the development of artillery certification programs. With the increasing focus on the development of host nation security forces, FiB units provide a powerful asset to develop fire support capabilities in host nation security forces.[53] The development of fires and fire support capabilities in host nation forces enable synchronization of effort, standardization of fires employment procedures, and increased situational awareness for coalition and host nation forces.

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[51] *FMI 3-24.9*, 1-6.

[52] Kelly Webster, "CJTF-82 Operational Overview Operation Enduring Freedom Feb 07 – Apr 08," (Fort Bragg, NC, 2008), 23.

[53] Ibid., 23.

The Army's rapid fielding of systems and capabilities has increased the battlefield awareness not only of commanders but individual soldiers. Army Battle Command Systems (ABCS) allow a fusion of information enabling commanders to visualize a vast complex battlefield.[54] Fires brigades now have the command and control capability of a pre-transformation corps headquarters. [55] These systems also lend themselves to the fusion of information across the joint force, giving commanders a previously unavailable access to the battlefield and operating environment. Combined Joint Task Force 82, while operating in Afghanistan in 2008, identified the criticality of situational awareness and synchronization by stating "Each echelon from platoon to CJTF must plan, train and rehearse their role and contributions to the fight upon contact. Command posts must be fully engaged in providing immediately available control, ISR (Intelligence Surveillance Reconnaissance), fires, MEDEVAC (medical evacuation) and support to the fight." [56] The ABCS allows commanders to visualize the battlefield and integrate lethal and nonlethal efforts.[57]

The FiB HQ provides a fusion of lethal and nonlethal capabilities to support tactical and operational level commanders. The current operations section has complete battlefield visibility through the use of ABCS, allowing the same situational awareness as both supported mission

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[54] Army Battle Command Systems v6.4 Executive Overview, Training and Doctrine Command. http://www.tradoc.army.mil/tadlp/documents/ABS%20files/ABCS_EO64/index.htm .(accessed 1 July 2009); These systems, known as Army Battle Command Systems, include Force XXI Battle Command Brigade and Below (FBCB2), Maneuver Control System (MCS), Command Post of the Future (CPOF), All Source Analysis System (ASAS), Advanced Field Artillery Tactical Data System (AFATADS), Air and Missile Defense Workstation (AMDWS), Tactical Airspace Integration System (TAIS) and Battle Command and Sustainment Support System (BCS3); these systems allow a fusion of information enabling commanders to visualize a vast complex battlefield.

[55] White, "The Fires Brigade White Paper," 5.

[56] Matthew M. Willoughby, "CJTF-82 Command AAR," (Fort Bragg, NC, 2008), 3.

[57] Army Battle Command Systems v6.4 Executive Overview, Training and Doctrine Command. http://www.tradoc.army.mil/tadlp/documents/ABS%20files/ABCS_EO64/index.htm .(accessed 1 July 2009).

commanders and supporting commanders facilitating the rapid engagement and support of maneuver operations. This capability provides the same situational awareness whether the FiB is employed as a fires headquarters or as a maneuver command. The fire control section focuses on the delivery of lethal fires on the battlefield. The section has connectivity to all artillery units on the battlefield through Advanced Field Artillery Tactical Data System (AFATADS). The fire control section is also a component of the brigade current operations with the situational awareness of the entire brigade staff. This allows the engagement of emerging targets or the handoff of targets to other assets for engagement (fixed / rotary wing aircraft). The AFATADS facilitates this handoff through the connectivity of fire support elements throughout the force structure. The fire control section also has the capability to pass target information to fixed wing aircraft through internet relay chat, and secure internet connections. The air support section facilitates the target handoff and integration of fixed wing aircraft for the engagement of lethal and nonlethal targets. Manned by air force personnel, this section has connectivity to aircraft in flight and provides links to the combined air operations center for planning future operations.[58]

The lethal fires section provides the integration of lethal and nonlethal means to engage targets. The integration of lethal and nonlethal personnel allows rapid transition of targets for engagement between lethal and nonlethal means. The lethal fires section performs a planning and assessment function to determine the effectiveness of the employment of fires in support of a command. The air defense management section allows for not only the rapid deconfliction of airspace in regard to lethal fires, but the identification of emerging targets through AMDWS and TAIS. The information operations section is the primary nonlethal engagement tool. It also

[58] *FMI 3-09.24,* 2-2.

supports the assessment of the effectiveness of fires, both lethal and nonlethal. This section can also assist in the planning of mitigation strategies following lethal operations by the force.[59]

The FiB BSB is identical to a BCT BSB with one notable exception. The FiB BSB does not include a medical company. This difference does not impact the BSB's capability to perform other functions performed in the areas of supply and maintenance. Regarding medical care, it is a consideration that must be taken into account if a FiB is to accept attachment of forces similar to a BCT. The FiB BSB is as capable as a BCT BSB to run brigade level supply distribution and echelons of maintenance above the battalion level. The FiB BSB also possesses its own organic Command Post Node signal unit, allowing it to be employed separate from the brigade.[60]

The FiB signal company is composed of a Joint Network Node (JNN), and two Command Post Nodes (CPN). The capability of the company is equivalent to a pre-transformation echelon above corps signal company. The JNN provides connectivity for the brigade headquarters ABCS systems. It uses off the shelf technology to enable greater connectivity through satellite and land line communication systems far in excess to what pre-transformation brigades possessed. The CPN provides this same level of connectivity to battalion headquarters. This is accomplished through the use of satellite communication and management within the signal company's headquarters element, which is integrated into the brigade headquarters.[61]

The organic MLRS or HIMARS battalion provides both the capability to employ precision fires and conduct maneuver operations. Attached M777A2 or M109A6 cannon battalions have these capabilities as well. Precision guided weapons (PGM) employment was

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[59] *FMI 3-09.24,* 2-11.

[60] Ibid., 1-13.

[61] Ibid, 1-11.

once an Air Force and Navy function. Since the late 1980's the Army has developed and is growing its ability to deliver PGMs. The fielding of the following families of munitions has greatly increased the capability in the current fight but transcend the spectrum to high intensity combat: Excalibur (155mm PGM), Guided Multiple Launch Rocket, and Block 1A Army Tactical Missile.[62] These munitions coupled with the dramatic increase in ISR capability at the brigade level allow for precision targeting and delivery of precision fires from 15 to 270 kilometers. The need for PGMs with all weather capability was expressed by CJTF-82 specifically to allow all weather engagement in the hostile climate of Afghanistan.[63] Artillery delivered PGMs are now being employed in Iraq and Afghanistan. The capability for the delivery of PGMs with artillery exists only in MLRS, HIMARS, M777A2 and M109A6 units. Light BCT's equipped with M1119A2 105mmm howitzers have no capability for the employment of precision fires. The synergy created through the employment of PGM's and sensors (Unmanned Aerial Systems/Human Intelligence/Low Level Voice Intercept) is being executed at the brigade level, however this synergy is not present at the operational level, in part due to the dispersed, decentralized nature of a full spectrum COIN fight.[64]

Fires brigades possess not only the capability to conduct full spectrum operations, but possess the additional capability of a robust fire support structure to support commanders. Commanders have the flexibility with the employment of FiBs to dual mission as both maneuver headquarters and force field artillery headquarters due to the modular structure of the FiB. This flexibility is not present in any other organization in the army. Fires brigades also have the ability to develop lethal and nonlethal fires capabilities in host nation security forces. Fires brigades are

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[62] Bielinski, "Massed Precision Fires," 14.

[63] Webster, "CJTF-82 Operational Overview," 25.

[64] *FM 3-24*, 1-23

suited to synchronize and deliver precision guided munitions in all weather conditions and at long range. With the increasing demand for precision guided weapons and reduction in collateral damage, the FiB allows the supported commander a single organization to increase the effectiveness of PGMs and decrease the amount of collateral damage. The employment of FiBs should be driven by the need for integration and synchronization of fires, but FiBs are also capable of full spectrum operations and operating as maneuver headquarters. Fires brigades have been deployed to Iraq performing both maneuver and fire support missions, however no FiB has been deployed to Afghanistan.

Fires Brigades and Fire Support in OIF and OEF

The employment of FiBs and corps / division fire support operations in Iraq and Afghanistan highlight both the versatility of FiBs and identify the need for fire support augmentation at the corps / division level. The employment of 18th Field Artillery Brigade, 41st Fires Brigade and 17th Fires Brigade in Iraq, highlight the FiB capability to operate as a maneuver headquarters or conduct security operations in a COIN environment. No FiB has been to deployed to Afghanistan; however the 25th Infantry Division Artillery was employed as a maneuver headquarters and multiple units from 18th Fires Brigade are currently deployed in Afghanistan. Corps and Division fire support operations in Iraq and Afghanistan show weaknesses in fire support structure specifically related to fire control. Case studies of FiB employment in Afghanistan and Iraq identify considerations for the employment of FiBs and best practices for FiB employment.

As seen in the case studies, the deployment of FIBs as units will strengthen fires brigades in their command and control capability while providing the necessary deconfliction and synchronization of fires at the operational level. The deployment of fires brigades as complete units would reduce the atrophy of not only core field artillery competence but strengthen FiB capabilities to command and control, and provide sustainment in full spectrum operations. The

deployment of FiBs in their stated doctrinal role also mitigates the post transformation weakness in division and corps modified tables of organization and equipment (MTOE) regarding fire support staff evidenced in the corps and division OIF / OEF case studies.[65] Assessing the technical capabilities of the FiB following transformation and the technical requirements for various deployment missions reveal an identical command and control capability as maneuver brigade combat teams, while FiBs bring the added capability of deconflicting and synchronizing fires. OIF provides for our first case studies of the employment of FiBs.

Operation Iraqi Freedom

Operation Iraqi Freedom 2006-2009 provides three cases of the full employment of fires brigades. The necessities of Operation Iraqi Freedom generated opportunities to highlight successful deployment of fires brigades performing both traditional fires missions and maneuver missions. The 18th FA BDE deployed in 2006, although not intact or in a unified command structure. The 41st Fires BDE deployed in 2008, as fire support augmentation to a multi-national division headquarters (MND).[66] Conditions on the ground changed during the deployment and the Brigade assumed the mission as a maneuver headquarters in MND-Center. The 17th Fires Brigade recently deployed to Basra, Iraq assuming the mission of 2nd Brigade, 4th Infantry Division. The deployment of 18th FA BDE was a deliberate decision; the other two FiB deployments emerged from the operating environment causing forces in the field to truly utilize all assets available. These three cases show the full spectrum of operations capability of fires brigades and are examples for the future employment of fires brigades.

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[65] Granger, "Integration of Lethal and Nonlethal Fires" 21, 35.

[66] Richard Francey, email interview by author, Fort Leavenworth Kansas, 5 September 09.

The 18th Field Artillery Brigade (FA BDE) deployed a brigade headquarters (-) (BDE HQ) as a force field artillery headquarters (FFA HQ) for Multi-National Division North (MND-N), three battalion headquarters (BN HQ) serving as rear area operations centers (RAOC), and nine gun truck batteries.[67] Although 18th FA BDE had not completed transformation to the fires brigade structure, the role it performed in MND-N was the role a fires brigade would traditionally perform. This was necessary due to the fact the MND-N Division HQ had completed modular transformation, with the division disbanding its divisional artillery headquarters. The division did not have a FFA capability and identified weaknesses in its fire support structure. The 18th FA BDE performed two critical functions for MND-N, the first was fire support and service as a FFA HQ.[68] The brigade's units did not work in the same command channels. The batteries did not work for their organic battalions and the battalions did not work for the brigade. The result was units in the brigade did not fulfill several core mission essential tasks common to all operations, principally command and control and sustainment. Subordinate BN HQs of 18th FA BDE performed RAOC missions that varied widely by unit. The missions of 3-321 FA and 1-321 FA mission were a base defense operations center with command and control responsibilities over attached maneuver assets. The 1-377 FA performed a mayors cell mission running garrison services in Taji, Iraq.[69] All subordinate batteries of these battalions were distributed across Iraq attached to various corps support battalions performing convoy security missions. The other

[67] Henry Larsen, "Operation Iraqi Freedom 05-07," 18th FA BDE Operational History (2007). 18th Field Artillery Brigade is composed of the BDE HQ, 3-321 FA, 1-321 FA, 1-377 FA, 3-27 FA. Rear Area Operation Centers (RAOC) is a mission used to describe both Forward Operating Base (FOB) Mayors Cell functions and Base Defense functions for FOBs. Gun truck battery is a term that describes a convoy security/escort mission in support of a corps support battalion escorting non military convoys in a theater of operation.

[68] Ibid., 4.

[69] Larsen, "18th FA Annual Historical Summary 2006," 5.

battalion of 18th FA BDE, 3-27 FA, did not deploy to Iraq, but performed an enduring mission in support of Special Operations Forces in Afghanistan.[70]

The deployment of 18th FA BDE meets the criteria of evaluation for maneuver and economy of force but fails in unity of command. The deployment of 18th FA BDE did deploy the entire brigade, fully utilizing all its components in the conduct of both standard and non-standard missions.[71] The employment of 18th FA BDE in OIF meets the criteria of evaluation for maneuver, and economy of force. The brigade's deployment does not meet the criteria of unity of command, due to the nature of missions subordinate units performed. Maneuver is met through the integration of fires and maneuver through the FFA mission performed by the BDE HQ and the employment of fires battalions controlling maneuver forces. The Brigade also integrated fires across the division area of operation with maneuver forces to gain maximum advantage. Economy of force was met through the employment of the entire BDE in a wide variety of roles required. The brigade utilized the majority of its combat power in supporting other operations required by Multi National Command – Iraq. These missions were necessary and required the application of combat power. Using the subordinate units of 18th FA BDE for these missions maximized the available maneuver forces to conduct higher priority missions for the command. Unity of Command was not met due to the dispersed nature of the BDE's employment and the failure to maximize the capabilities of the headquarters. The BDE did not command and control any organic or attached units and the subordinate BNs controlled no organic units and only two controlled attached units. The fractured nature of the brigade's employment did not mass the capabilities of brigade toward a common objective and had the brigade working for multiple commanders in pursuit of multiple purposes.

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[70] Larsen, "18th FA Annual Historical Summary 2006," 38-39.

[71] Larsen, "Operation Iraqi Freedom 05-07," 4.

Elements of the 41st Fires Brigade were originally deployed as fire support augmentation to the 10th Mountain Division in 2007. The brigade was also fulfilling a role in forward operating base (FOB) security/administration. A fundamental change in how the brigade was being employed occurred in 2008 when the Polish division HQ serving as MND-Center South redeployed from Iraq.[72] The 2nd Brigade, 4th Infantry Division (2/4 BCT) initially assumed the Polish mission. The 41st FiB was tasked with assuming the area of responsibility from 2/4 BCT and performing the mission of a maneuver BCT.[73] The mission included the integration of coalition forces and Iraqi Security Forces, including the command of a partner nation infantry brigade.[74] The 2nd Battalion, 20th Field Artillery deployed and conducted operations as an infantry battalion.[75] This was due to the experience the soldiers gained in several previous deployments performing "non-standard" missions and the emerging mission of the brigade. This capability is not fully utilized with field artillery units conducting FOB security and entry control vice full spectrum operations described in *FM 3-0*.

The employment of 41st FiB as in OIF meets all criteria of evaluation: maneuver, unity of command and economy of force. The 41st FiB was used as a maneuver unit conducting not only fires tasks, but traditional maneuver tasks. The effective use of 41st FiB as a maneuver unit allowed the balancing of protecting ones own forces with the ability to exploit security success in the brigades area of operation. The brigade also had its organic and attached units providing for unity of command. The brigade was employed with a single purpose and toward a common

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[72] 10th Mountain Division OIF webpage 2009 "Mountain View," Unites States Army. http://fourm.taskforcemountain.com/, The (accessed 7 September 2009).

[73] Donald E. Phelps, "Commander Interview, COL Richard M. Francy Jr. Commander 41st Fires Brigade, MND-C," (Center for Army Lessons Learned: Fort Leavenworth KS, 2009), 3.

[74] 41st Fires Brigade OIF Webpage 2009, "Mission," United States Army. http://www.41stfiresbrigade.com/pages/news/41arrival.htm (accessed 7 September 2009).

[75] Francey. email interview by author.

objective. Within the larger context of OIF, 41st FiB performed an economy of force mission with the correct capabilities to increase the coalition forces span of control while mitigating the loss of a division level headquarters and a maneuver brigade. The 41st FiB possessed the appropriate combat power to accomplish its mission without diverting essential combat power from other efforts. This mission would have otherwise fallen to a maneuver brigade stretching combat forces and dispersing combat power. A similar evaluation is seen when evaluating the employment of 17th FiB in Basra, Iraq.

The 17th Fires Brigade was originally ordered to support MND-Baghdad and MND-North with a staff and fire support augmentation and to replace 41st FiB. The 17th FiBs mission changed in early 2009 when a decision was made to not replace the 41st FiB. The 17th FiB assumed the mission of 2nd Brigade, 4th Infantry Division (2/4 BCT) conducting full spectrum operations in Basra.[76] The 2/4 BCT operation in Basra was an interim solution to mitigate the redeployment of British forces from MND-South. The 17th FiB's original task organization consisted of the BDE HQ and one FA BN, leaving its signal company and brigade support battalion in the United States. Through a series of operational need statements and command briefings, the brigade was able to increase the force to be deployed for the mission although at reduced manning levels.[77] The 17th FiB was able to deploy its brigade support battalion, signal company, one artillery battalion, and the brigade headquarters. The artillery battalion trained for full spectrum operations focusing on infantry skills as the primary maneuver force. The brigade had several units placed

[76] 34th Infantry Division OIF webpage 2009. "The Red Bull Report," United States Army. http://www.theredbulls.org/https://www.mnf-iraq.com/images/Unit_Newsletters/090828_redbull.pdf (accessed 7 September 2009).

[77] Niles, email interview by author, Fort Leavenworth Kansas, 7 September 2009.

under its operational control to accomplish its mission including transition teams, provincial reconstruction team, military police battalion, armor company, and civil affairs company.[78]

Challenges for the 17th FiB in accomplishing this mission mainly focused on personnel and equipment for units. Personnel augmentation of the brigade was required to conduct the mission, consisting of key staff officers in engineer, military intelligence, and psychological operations specialties. A lack of a military intelligence company (MI Co) was identified as a significant difference between FiBs and BCT's. The 34th Infantry Division and Multi-National Corps-Iraq provided personnel augmentation to the brigade, to mitigate these personnel differences between a FiB and a BCT.[79] The deployment of 17th FiB meets the criteria of maneuver, unity of command and economy of force despite the challenges identified. 17th FiB was employed both as a maneuver and fires headquarters managing both maneuver units and fires units and their synchronization in their area of operation. 17th FiB met the criteria of unity of command through the employment of a central headquarters for the management of all activities within their area of operations massing both maneuver and fires to a desired effect. Economy of force was met through the augmentation of a headquarters performing a full spectrum mission that replaced a maneuver brigade headquarter, maximizing both the maneuver and fires capabilities of 17th FiB.

The deployment of 18th FA BDE, 17th FiB and 41st FiB highlight several fundamental considerations when employing a FiB for full spectrum operations. First is the difference in structure between a FiB and a BCT. Fires brigades lack several key enablers organic to a BCT, specifically the MI Co and engineer company. Second, the staff structure of a BCT is more robust than a FiB. Engineer and civil affairs sections are not authorized in a fires brigade headquarters.

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[78] Niles, email interview by author.

[79] Ibid.

Third, the deployment of a FiB should include its signal company and brigade support battalion. Omitting these units leave the FiB unable to communicate or support assigned and attached units. The 18th FA BDE deployment met the criteria of maneuver and economy of force, but failed in unity of command. The failure in unity of command impacts the full spectrum capability of the brigade for future missions and its ability to command and control assigned and attached forces. The deployment of 17th FiB and 41st FiB met the three evaluation criteria of maneuver, unity of command and economy of force. The employment of FA units as maneuver forces integrates fires and maneuver within the brigade's area of operation. The inclusion of attached and assigned units in the deployment meets the unity of command. Economy of force is met by maximizing the employment of all brigade units in its mission. All assigned brigade forces were committed in support of the brigade's mission with no forces underutilized. These three OIF case studies highlight the full employment of FiBs conducting missions ranging from maneuver HQ to FFA HQ. They also identify best practices for deploying FiBs and the challenges in deploying a FiB as a maneuver HQ. Operation Enduring Freedom provides examples of the deployment of an artillery HQ as a maneuver HQ and the deployment of elements of a FiB.

Operation Enduring Freedom

The deployment of field artillery to Afghanistan did not begin until 2003 when the first 105mm towed howitzers arrived in theater.[80] Previously, commands had determined artillery to require too much airlift to make it viable as a fire support asset.[81] It was not until 2004 that the first 155mm artillery unit deployed to Afghanistan. This unit was deployed as a single battery of

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[80] Joshua Mitchell, "A Case for Howitzers in Afghanistan." *Field Artillery* (November-December 2003), p 6.

[81] Robert H. McElroy, "Fire Support for Operation Anaconda," *Field Artillery* (September-October 2002), 6.

approximately 110 soldiers and scattered in four two-gun firebases throughout Afghanistan. [82] The unit's battalion headquarters did not deploy and the two-gun platoons were attached to units from brigade to battalion level across the country.[83] The 25th Infantry Division Artillery (DIVARTY) deployed to Afghanistan in 2004 as a maneuver headquarters.[84] Its deployment was the first instance of a Field Artillery / Fires Brigade being deployed as a maneuver HQ. The 25th ID DIVARTY was a headquarters only; it had no organic troop units and received the attachment of several units to accomplish its mission. The 18th Fires Brigade received a deployment order in 2007 to deploy two 155 batteries (3-321 FA), one High Mobility Artillery Rocket System (HIMARS) battery (3-27 FA), and a Target Acquisition Battery (TAB) to Afghanistan (D/26 TAB), and a small BDE detachment to Iraq.[85] No battalion headquarters element was deployed and Brigade units were deployed throughout the Central Command area of responsibility. Several major units did not deploy including the Brigade Support Battalion, Signal Company, and sixty percent of the Brigade HQ.[86]

The25th ID DIVARTY was originally not to deploy with their division to Afghanistan. In 2004, the division was tasked to provide an additional brigade headquarters for the mission in Afghanistan. The 25th ID DIVARTY was identified to meet this requirement. To accomplish this mission the 25th ID DIVARTY received three infantry battalions (one active army, one marine and one national guard).[87] The DIVARTY also had command and control responsibility for eight

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[82] Anonymous, "Silhouettes in Steel, 25th Infantry Division (Light) Artillery," *Field Artillery* (November-December 2004), 34.

[83] Webster, "CJTF-82 Operational Overview," 19.

[84] Gary H. Cheek, "CTF Thunder in Afghanistan," *Field Artillery* (March-April 2005), 5.

[85] Bentley, "Command Brief ."

[86] Ibid., 26.

[87] Cheek, "CTF Thunder in Afghanistan," 6.

provincial reconstruction teams and several Afghan army units. Its operating area spanned sixteen provinces, roughly the size of Iowa.[88] The 25th DIVARTY also deployed with the division's separate howitzer battery, F Battery 7th FA. The battery initially deployed manning 120mm mortars instead of its 155mm howitzers.[89] The battery transitioned during the deployment back to its 155mm howitzers in August 2004. The battery provided artillery support in eastern Afghanistan, in addition to patrolling and local security operations.[90] 25th ID DIVARTY was employed in a new role to meet an emerging requirement.

The 25th ID DIVARTY was able to perform a full spectrum maneuver mission in Afghanistan despite its lack of organic units and training for this purpose. The deployment of the DIVARTY as a full spectrum force met the evaluation criteria of maneuver, economy of force and unity of command. The DIVARTY operated as a maneuver HQ integrating fires and maneuver across its AO, utilizing its attached force while providing fire support functions and fire support augmentation to the division. The DIVARTY managed not only a maneuver mission, but fire support coordination across the division area of operations. The deployment and mission met the definition of economy of force by maximizing the full spectrum capabilities of the HQ, utilizing all HQ assets to their full capability and highlighting the flexibility of FA HQs to perform both maneuver and fire support tasks simultaneously. Unity of command was met by the employment of the HQ as the focus of development and security within the division area of operation, controlling all PRT's and synchronizing development activities in the division area.

The 18th FiB HQ deployed a small detachment from the BDE HQ to support MND-Baghdad, in addition to supporting Afghanistan, splitting command and control of the brigade.

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[88] Cheek, "CTF Thunder in Afghanistan," 6.

[89] "Silhouettes in Steel, 25th Infantry Division (Light) Artillery," 34.

[90] Ibid.

The mission was ostensibly to perform a force field artillery function. During a pre-deployment site survey, the mission became providing augmentees to various division staff sections. The largest element in the mission was to augment the division's Iraqi Security Force cell. The HQ (-) mission was staff augmentation of seven division staff elements. The personnel deployed on this mission were under the command and control of their various sections and not linked together in any way. The deployment of forty personnel from 18th FiB HQ, out of a deployable strength of 120 personnel utilized 35 percent of the HQ. The remaining 65 percent of the HQ was therefore combat ineffective and incapable of performing combat missions during the fifteen month deployment.[91]

The 3-27 FA (HIMARS)(18th FiB) continued its support of a SOF mission begun in 2006. The battalion deployed a single battery to Afghanistan and rotated it on a continuous basis. The battalion also deployed a liaison element to provide command and control, logistics, and fire support to the supported SOF command. Due to the nature of the enduring mission for the battalion, 100% of it was committed to pre-deployment training, deployment or reconstitution. This battalion's mission meets the eventual goal of army dwell and the Army Force Generation model.[92]

Delta Battery, 26th FA (Target Acquisition) (18th FiB) was tasked to reorganize as a composite Q37 and Q36 battery to provide counter mortar and rocket target acquisition in Afghanistan.[93] The battery was required to man one Q37 radar, three Q36 radars and provide a BCT a target processing section for the deployment. By the MTOE a TAB assigned to a FiB is organized with two Q37 sections, a meteorological section, and a target processing section. The

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[91] *FM 1-02, Operational Terms and Graphics*, D-2.

[92] Department of the Army, *Army Posture Statement 2008* (Washington, D.C.: Government Printing Office, 2008), Appendum E.

[93] Lynn Weatherspoon, "D/26 FA D-30 Brief," (Fort Bragg, NC, 2007), 3.

battery deployed minus its meteorological section, which continued to support 18th Fires Brigade training in the United States.

The 3-321 FAR (18th FiB) was identified to deploy a M777A2 155mm towed howitzer battery for OEF 07-09 consisting of a total of six (6) M777A2 howitzer sections with associated personnel and equipment in order to provide responsive force protection, counter-rocket and counter-mortar fires against anti-coalition forces in support of US and coalition forces.[94] A second request for forces was approved for a second M777A2 six-gun battery. However, the request for forces did not specifically identify or address the full complement of command and control elements associated with the requested force composition or the forward support company required to maintain these units. A force composition of two (2) batteries of six (6) guns each, six (6) Fire Directions Centers, an administrative and logistical support element equates to 75% of all personnel and equipment within a modular 155mm field artillery battalion. This deployment left a fractured unit with the remaining 25 percent of the battalion consisting of a partial forward support company, a battalion headquarters, and no fire direction capability with the remaining six (6) howitzers at home station. To deploy, employ, sustain and redeploy a force of this size requires a battalion headquarters element to manage and facilitate the execution of all operational and support requirements associated with their deployed subordinate units. The 3-321 FA was the first Army unit to field the M777A2, and it was fielded the M777A2 specifically to deploy in support of OEF. The presence of an FA battalion headquarters could have provided several key functions. A battalion headquarters provides unity of command for their deployed subordinate batteries while also providing the force commander with additional flexibility to reinforce his subordinate units with a commander and staff elements. Second, a headquarters provides a single

[94] Christopher Bentley, "Justification for the inclusion of 3-321 FAR battalion headquarters element for OEF 07-09," (Fort Bragg, NC 2007), 1.

point of contact for M777A2 and Excalibur expertise while facilitating any outside agency coordination for administrative and logistical support associated with fielding a new weapon system unique to the theater and unfamiliar to many commanders.[95] Third, battalion command and control could provide for training and certification oversight, coordination of sustainment requirements for all organic field artillery units, and a force field artillery headquarters to the supported command.

The employment of 18th FiB in OEF identifies a common problem of how FiBs are being deployed throughout the CENTCOM AOR; they are deployed in piecemeal fashion and fail to meet the evaluation criteria for maneuver, economy of force and unity of command. Certain elements of the brigade were fully utilized to their maximum capability (3-27 FA / D-26 FA), but the brigade as a whole was underutilized and did not maximize the ability of the brigade to support maneuver through fires. The deployment of 18th FiB fails maneuver by lacking an integration of maneuver and fire support in its area of operation. The employment of specific units within the brigade show a lack of synergy in this synchronization, specifically having the brigade headquarters augmenting a division staff with no significant fire support functions, and the lack of a synchronizing element for fires in Afghanistan. Economy of force was not met through the lack of employment of all combat power available. The brigade HQ, brigade support battalion and signal company were not employed to maximize their capabilities and utilized during the deployment. Although several brigade elements were deployed, sixty percent of the brigade remained in the United States and left their capability unutilized and unable to fully function as a unit. Unity of command was not met through the piecemeal employment of the brigade across two theaters with no central focus. The brigades units were dispersed to perform a

[95] Raytheon, "Excalibur Precision-Guided, Long-Range, 155mm Artillery Projectile155," http://www.raytheon.com/capabilities/rtnwcm/groups/rms/documents/content/rtn_rms_ps_excalibur_datasheet.pdf (accessed 1 October 2009).

myriad of tasks without a central focus for the brigade's main effort. The units and individual soldiers were used to augment deployed units dispersing their effectiveness and lacking a common purpose and mission. The deployment did not mass the brigade's combat power toward any objective and left the brigade working for many commanders across two continents.

The deployments of FiBs have not mitigated the weaknesses in the corps and division fire support structure to maximize the effectiveness of fires integration at the operational level. Weaknesses identified through multiple deployments of corps and division headquarters in both OEF and OIF have been identified and require redress, namely the lack of sufficient personnel to perform the required functions as an operational level headquarters. The limiting factor of the army having only six active FiBs also impact corps and division abilities to meet the required functions of an operational level headquarters. The assessment of FiB employment is not complete without a review of the employment of corps and division headquarters in OIF and OEF, the HQs FiBs were designed to support.

Corps and Division Fire Support OIF and OEF

The transformation of division and corps headquarters into the modular post-transformation structure has created some challenges when integrating and synchronizing fires. The pre-transformation force structure included divisional artillery headquarters for each division. The DIVARTY HQ provided the division commander a fire control capability and force field artillery headquarters to integrate and synchronize fires across the division. The Corps Artillery (CARTY) HQ provided this same function at the corps level. Transformation saw the removal of DIVARTY and CARTY HQs from the force structure and the establishment of fires brigades to

fill both these previous HQs missions.[96] Six active fires brigades were established to replace the thirteen active DIVARTY and CARTY HQs. The modular Division and Corps differ significantly from their pre-transformation structure in fire support manning and capability.[97]

The modular Corps and Division structure is continuing to evolve with our doctrine. The removal of effect based operations from doctrine is significant since the first modular units were designed with a focus on EBO. An analysis of current organizational structure shows an increase in the authorizations for fires support personnel. The biggest of these changes is the addition of Deputy Commanding General Fire Support Officer, the position previously performed by the CARTY Commanding General. The XVIII Airborne Corps is authorized fifty seven field artillery officers and soldiers.[98] This increase however is not universal at the corps level. III Corps is authorized thirty one field artillery officers and soldiers, with no general officer serving as a Fire Support Officer.[99]

To mitigate the disparities, corps and division headquarters routinely task installation units to augment their headquarters prior to deployment. This technique is effective; however it does also create a cascade effect of higher HQ tasking subordinates to meet their manning shortfalls. This in turn reduces the effectiveness of subordinate headquarters as they struggle to meet their own mission requirements. Prior to the XVIII Airborne Corps deployment to OIF in 2008, 18th Fires Brigade was tasked to provide over thirty augmentees for various corps staff

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[96] Granger, "Integration of Lethal and Nonlethal Fires," 32.

[97] Ibid., 35.

[98] Department of the Army, "United States Army Force Management Support Agency," (accessed March 20, 2009); available from https://www.usafmsardd.army.mil/unprotected/splash/welcome.aspx; Internet, 52401LFC18-8709.

[99] Ibid., Table of Organization and Equipment III Corps, 52400GFC11-0109.

sections.[100] The advantage XVIII Airborne Corps had was the stationing of a fires brigade on its installation. III Corps and 4th ID benefited from the same situation at Fort Hood.

Colonel Dewey A. Granger, in a School of Advanced Military Studies Advanced Operational Art Studies fellowship monograph, suggested several solutions to the future of the joint fires cell and the coordination of lethal and nonlethal fires. Noticeably absent from his recommendations, is the capabilities and employment of a fires brigade to enhance the coordination of joint fires in an area of operation.[101] The irony of the need for fires brigades is that they are not being utilized fully, yet commanders and leaders believe they are fully committed.[102] The demand for fires brigades COL Granger referenced was in fact only fires augmentation cells, not complete fires brigades.[103]

Colonel Granger identifies three case studies in his monograph regarding corps and division fires / joint effects cells in OIF/OEF. His first is CJTF-7 in 2004-2005. He highlights the need for the CARTY HQ to augment the Joint Fires and Effects Coordination Cell (JFECC). He also identifies the nature of the JFECC as "an ad hoc organization designed to meet the requirements of the emerging environment because doctrinal fires cell manning did not support the current full spectrum environment." His second is III Corps Headquarters in 2006-2008. One of the functions identified to be performed during this deployment was Force Field Artillery HQ, a function doctrinally to be performed by a fires brigade. The creation of the III Corps Joint Fires Cell for this deployment was possible through the use of subordinate and garrison units' augmentation of the Corps staff. The significance of this deployment and the creation of the III

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[100] White, "The Fires Brigade White Paper," 2.

[101] Granger, "Integration of Lethal and Nonlethal Fires," 40-43.

[102] Ibid., 36.

[103] Ibid., 40.

Corps structure is "the necessity to relook the Corps Headquarters design in support of future operations." The third operational example was 10th Mountain Division serving as CJTF-76 in Afghanistan. The organization and manning at the division level regarding fire support was very limited. Limitations on the divisions ability to conduct counter fire, targeting, fire planning and the management of fires assets required the use of augmentees. 10th Mountain Division identified the need for a fires brigade to support its operations, but was unable to secure one for the Afghan Theater due to the "high demand for fires brigades in Iraq."[104]

The conclusions reached in COL Granger's three corps and division cases was that current fire support structures do not have the manning authorized to accomplish the range of tasks previously conducted by CARTY and DIVARTY HQs. A general officer at the corps HQ serving as Fire Support Officer, is very similar to the position of a CARTY Commander, as does the expansion of fire support structure at the corps level as augmentation for functions previously performed by the CARTY staff. The division faced the same challenge as the Corps, inappropriate structure and no fires units available to conduct operations previously conducted by the DIVARTY. The limiting factor of having only six fires brigades in an active force to support ten divisions and three corps is also significant, since the demand exceeds the available forces.

The FiB and corps / division case studies identify the missions FiBs are currently conducting in Iraq and Afghanistan and could result in the gaining of additional efficiencies in both the Army's employment of fires brigades and the mitigation of the weakness in current Corps and Division fire support capabilities. [105] The FiB modular organization allows it to perform a myriad of tasks in addition to its primary mission of synchronizing lethal and nonlethal fires. Mission profiles suitable for a complete FiB consist of force field artillery headquarters or a

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[104] Granger, "Integration of Lethal and Nonlethal Fires," 21, 28, 31, 35, 36.

[105] Ibid., 21.

full spectrum maneuver headquarters. The organization of fires brigades is identical in command and control capability to that of a BCT. Field artillery soldiers are far more capable of conducting full spectrum operations than ever before.[106] However, the combination of both technical fires skills and the practical counterinsurgency skills found in FiBs is being both underutilized and under employed for both operational and tactical commanders. The conclusions drawn from the historical examples of the deployment of FiBs and corps / division headquarters highlight the positive and negative employment of FiBs and the requirement for augmentation of deployed corps / division headquarters.

Conclusions and Recommendations

The army has undergone many significant changes in the past decade including shifts in doctrine, force structure and missions. Army doctrine in 2001 adopted full spectrum operations as the primary concept of force employment. The transformation of army forces from a division-centric force to a modular brigade-centric force occurred over the period of just six years. The missions of many units in the army have evolved due to the nature of the ongoing conflicts in Iraq and Afghanistan. Units now fulfill "non-standard" missions, performing tasks they were not designed or trained to accomplish. These three changes would have been difficult to accomplish in peacetime, yet the army has adapted and accomplished all three during a period of persistent conflict. Despite the successes of doctrinal changes, transformation and evolving missions, several areas for improvement are clear after evaluating the employment of fires brigades in OIF and OEF. These areas consist of Army / Joint Doctrine, Field Artillery doctrine, force structure for the fires brigade, best practices for employment of fires brigades and ISAF operations in Afghanistan.

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[106] White, "The Fires Brigade White Paper," 7.

Army and joint COIN / stability doctrine should be reevaluated with respect to fires integration and synchronization and the role of the fires brigade at the tactical and operational level. Specific disconnects between the army's concept of full spectrum operations and the integration of fires exists. Counterinsurgency and stability doctrine do not nest with the concept of full spectrum operations for the army. *FM 3-24* fails to reference the importance of synchronization of lethal and nonlethal fires in COIN and highlight only lethal operations for fires. Joint doctrine has a similar flaw. Although *JP 3.0* highlights the integration of fires across the spectrum of conflict, fires is noticeably absent in Joint doctrine for stability and foreign internal defense doctrine. *FM 3.09-24* states the fires brigade is the provider of all functions previously held by the CARTY and DIVARTY at both the tactical and operational level. Yet these principles are not consistent across both Army and Joint doctrine. Joint doctrine must address the role of Army FiBs at the operational level since they are the only organization that performs the fires function at the JFC level.

Fort Sill must educate the force on fires brigade capabilities. The FA Campaign Plan must include an information operations component for fires brigades. As the fires brigade proponent, Fort Sill is best positioned to not only educate through the army school system, but to educate both field commanders and army leaders that fires brigades are capable of conducting full spectrum operations. Field artillery tactical doctrine must be finalized following transformation as well. Many field artillery doctrinal publications are still in draft form. These manuals span the entire spectrum of fires tactical units from battery operations, to fires brigade operations.[107] This is also true for fire support doctrinal references at the division and corps level. The lack of updated doctrinal references creates a significant gap in knowledge for leaders and the force on

[107] Fires Knowledge Network, https://us.army.mil.

the employment of fires while conducting full spectrum operations. Doctrine is not a panacea or a single source of knowledge, but it does provide the foundation of education in the force regarding mission and capabilities with the army. Doctrine also provides a point of departure for the application of forces in full spectrum operations and specifically counterinsurgency operations.

The force structure of fires brigades should be enhanced for the conduct of full spectrum operations as defined in *FM 3.0*. The authorization of several additional positions in the brigade headquarters would benefit not only full spectrum operations, but enhance the core missions of fires brigades in the synchronization of lethal and nonlethal fires. Military intelligence capability should be increased to allow enhanced targeting for both lethal and nonlethal fires. The addition of a civil affairs officer and engineer officer would enhance the brigade's ability to synchronize fires, both lethal and nonlethal. These minor force structure changes would greatly enhance not only the ability of a fires brigade to perform full spectrum operations, but enhance a fires brigade capability in performing its traditional roles, as well as its emerging role as a full spectrum force.

The 41st FiB and 17th FiB deployments provide models for the employment of fires brigades. Fires brigades are capable of full spectrum operations yet are being used as force providers, while not utilizing their full capability.[108] Business rules for the employment of fires brigades should be established to maximize their employment in any environment. A recommendation for these rules would be to evaluate fires brigades holistically, bringing all their forces to bear versus the deployment on only certain units while leaving other units in the United States. The major consideration for the deployment of a fires brigade for full spectrum operations is the lack of several key enablers present in a BCT. The deployment of modular fires brigades supports not only current operations but the sustainment of full spectrum capability for fires

[108] White, "The Fires Brigade White Paper," 2.

brigades through the utilization of all elements of combat power. Deployment of complete fires brigades allows the full spectrum of warfighting functions to be performed at the brigade. The sustainment and command and control competencies are as important to fires brigades as the delivery of fires.

International Security Assistance Force is currently standing up an operational level headquarters, the ISAF Joint Command (IJC). This command should consider the employment of a fires brigade at either the IJC operational level or at the division tactical level. Both levels of command could benefit from the capabilities of a fires brigade. Expansion of ISAF operations including the formation of an IJC, and a possible increase in forces for Afghanistan show an emerging opportunity for fires brigades to be employed in a manner similar to Iraq, conducting full spectrum operations. General McCrystal may also determine that a fires brigade is necessary to coordinate and deconflict the increasingly complex operating environment of Afghanistan. The capabilities of a fires brigade would be an option for an increase in forces for ISAF putting not only increased combat capability into the theater but increasing the ability of coalition forces to command and control these forces. The deployment of a fires brigade would give ISAF a dedicated command to coordinate, synchronize and deconflict fires at the operational level.

The implementation of these recommendations will increase the effective employment of fires in full spectrum operations. Revising Army / Joint Doctrine related to fires in counterinsurgency and stability operations would nest with fires employment articulated in *FM 3-0* and *JP 3-0*. Field Artillery doctrine must be published to assist commanders on the employment of fires units, specifically fires brigades. Force structure for the fires brigade should be enhanced to increase their ability to integrate lethal and nonlethal fires. Best practices for deployment of fires brigades should be established to maximize their employment and capabilities. International Security Assistance Force should request a fires brigade to conduct operations in Afghanistan to better synchronize fires in that complex environment. Adoption of

these recommendations enhances both the full spectrum capabilities of FiBs and the ability of commanders to accomplish their missions.

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